



# UNITED STATES PATENT AND TRADEMARK OFFICE

50  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/708,129   | 11/07/2000  | David N. Spiegel     | END920000101US1     | 1094             |
| 45092  | 7590        | 04/07/2005           | EXAMINER            |                  |
| HOFFMAN, WARNICK & D'ALESSANDRO LLC<br>THREE E-COMM SQUARE<br>ALBANY, NY 12207 |             |                      | RUTTEN, JAMES D     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2192                |                  |

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/708,129

Applicant(s)

SPIEGEL, DAVID N.

Examiner

J. Derek Rutten

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Acknowledgement is made of Applicant's amendment dated 2/2/2005, responding to the 12/2/2004 Office action provided in the rejection of claims 1-18, wherein claims 1, 9, 17, and 18 have been amended, no claims have been canceled, and no new claims have been added. Claims 1-18 remain pending in the application and have been fully considered by the examiner.
2. Numerous arguments were presented by the applicant, particularly that the Stupek reference failed to teach adding prerequisites and corequisites to a list, and failed to teach a Service Link database application. These arguments are convincing, therefore, the rejection is withdrawn. Further arguments will be addressed below.
3. Applicant's previous amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

*Response to Arguments*

4. In the last paragraph on page 10 through the top of page 11 of the response, the applicant essentially argues that Stupek fails to disclose a database of known second maintenance items, since items in Stupek are “limited to data regarding each upgrade package,” in contrast to the items of the present application which are part of the database whether they are “included in a particular upgrade or not.” It is noted that these features are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. In the last paragraph on page 10 of the response, the applicant argues that “the Office then removes all meaning from the word ‘known’” and provides a quotation from the previous Office Action as support for the argument. However, the basis for this argument is unclear. The applicant does not specifically address the quotation from the previous Office Action, but simply makes the allegation without an explanation. The word “known” in this case is used as an adjective meaning “proved or generally recognized” (American Heritage Dictionary of the English Language, Fourth Edition). In computer science, any data available to a software program can be interpreted as being “known,” since the program can access and manipulate the generally recognized data. To the contrary, unknown data cannot be manipulated since there is no way to access unrecognized data. In the present case, Stupek assembles maintenance items into a database for access and manipulation by the upgrade process which recognizes the data as maintenance items. If these items were unknown, then Stupek’s upgrade process would be

Art Unit: 2192

unable to recognize them. If the applicant does not believe Stupek's maintenance items to be "known", then a clear technical explanation should be provided describing how the language of the claim is distinguished from Stupek. Furthermore, the applicant is invited to provide a definition of the word "known" in order to facilitate a proper interpretation of the claim.

6. In the second paragraph on page 11 through the top of page 13, the applicant essentially argues that Stupek does not teach searching the database for items matching prerequisites and corequisites. The applicant appears to argue that Stupek's initial searching is done to match a resource with an upgrade, does not search specifically for items matching prerequisites and corequisites, and "does not search for dependencies at all." This argument is not convincing. The search for dependencies is inherent in the process of the automatic upgrade as described by Stupek column 7 lines 29-35:

Therefore, the dependency information in the Package database 25 describes not only the dependencies between packages on the CD, but also all dependencies between an upgrade package and any upgrade not available on the CD. Even though the unavailable upgrades cannot be automatically installed with the available upgrades, the user is nonetheless aware of their necessity.

A search for these items must be carried out, otherwise they could not be automatically installed.

7. In the last paragraph on page 13 through the top of page 14, the applicant essentially argues that Stupek does not disclose an order list of items not already received, and then ordering, receiving, and applying the items on the order list. However, column 4 lines 11-34 generally describes a process of determining if any available upgrades have been already been applied. If an update is found that has not already been received, it is added to the resource database which is used to compile a job. Column 5 lines 41-45 describes a process of grouping

Art Unit: 2192

upgrade packages into a job. This is interpreted to be the step of adding packages not already received to an order list. Further, column 7 lines 6-15 describes automatic installation in the context of package dependencies. This provides for receiving and applying the items on the order list.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-9, and 11-18 rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent No. 5,960,189 to Stupek et al. (hereinafter "Stupek") in view of U.S. Patent 5,721,824 to Taylor (hereinafter "Taylor").

As per claim 1, Stupek discloses:

*A method of maintaining software on a computer system (See Abstract)*

*comprising the steps of:*

*Bringing up first and second host sessions on a computer system (FIG. 1 elements 1 and 2);*

*Starting in said first host session, a software recording application having data on existing first maintenance items that have been previously applied to said computer system (figure 1 reference 5 "Management Information Base", column 3 lines 22-30, "A*

Art Unit: 2192

management information base (MIB) within the server **maintains basic descriptive information** about each of the resources **available** on the server.” Resources that are currently available and exist on the server, inherently must have been previously applied, otherwise they would not be available.);

*Starting in said second host session, a database application having a database of known second maintenance items including prerequisite items and corequisite items corresponding to each of said known second maintenance items (figure 1 reference 9 “Upgrade Database”, column 3 lines 44-column 7 lines 8-10, “The database also contains information regarding the dependencies between the package and other upgrade objects or packages...” Maintenance items must inherently be known if information regarding them is stored in a database. As a database is a collection of knowledge, it would not exist without knowledge of its members.);*

*Activating a maintenance application on said computer system (figure 1 reference 11 “Upgrade Advisor”);*

*Entering a first list of new third maintenance items in said maintenance application (figure 1 reference 7 “Resource Upgrades”, column 3 lines 31-43, “Upgrades to the network resources are provided to a server manager by a distribution medium (not shown), such as a CD-ROM. The upgrades 7 may also be provided by an on-line service (not shown), such as a bulletin board service*

Art Unit: 2192

administered by a manufacturer of network resources.” Upgrades inherently provide a new version of a product, otherwise they might be called a “downgrade”, or “rollback”. Also see column 3 line 57 – column 4 line 5.);

*Searching said database of known second maintenance items for records matching each of said new third maintenance items that have said prerequisite items and corequisite items, (column 4 lines 20-27: “The upgrade advisor then **retrieves upgrade information from the upgrade database** and performs two types of comparisons: a) whether or not a particular upgrade package corresponds to a resource on the server, and b) whether or not the version number of the upgrade package matches the version number of the corresponding network resource (i.e, whether or not the upgrade package represents a true upgrade for the existing network resource) .”; also column 7 lines 6-35, especially lines 29-33: “Therefore, the dependency information in the Package **database 25 describes not only the dependencies between packages on the CD, but also all dependencies** between an upgrade package and any upgrade not available on the CD.”; also column 4 lines 6-9: “When the analysis is complete, the **upgrade advisor 11 presents a report** and/or graphical display to the user. This output is in the form of **upgrade recommendations**, each supported by an explanation of the*



Art Unit: 2192

reasons for upgrade.” Comment: The first list is analyzed by the upgrade advisor and modified according to the current maintenance needs, producing a report, or list, of prerequisites and corequisites.);

*Thereafter determining from said software recording application which items on said first list have already been received, and adding those items not received to an order list* (column 4 lines 20-27 as cited above describes the determination of items that have already been received; also column 4 lines 45-48: “When the upgrade advisor 11 and/or the user have **selected 100 the network resources 3 that need to be upgraded**, an upgrade installer 17 oversees the automatic installation of the packages to the server.” Comment: A determination of which items have already been received is inherent in the selection of “network resources that need to be upgraded”. If a resource does not need to be upgraded, then it must have already been received. Selection of resources is impossible without determination. Also column 5 lines 41-45: “In the server upgrader 22, several upgrade packages 7 and the corresponding installation instructions 20 are **grouped 108 into a "job" 18**. Within each job 18, the installation instructions for every package are included in a control file 18a.” Comment: Grouping packages into a job is considered adding to an order list.); and

*Ordering, receiving, and applying said items on said order list* (column 4 lines 45-48 as cited above in addition to column 4 lines 48-53: “At the outset, the

Art Unit: 2192

appropriate upgrade packages 7 are **retrieved** 102 from the distribution medium (or the on-line service) and **supplied** 106 to a server upgrader 22 located in the upgrade installer 17. Installation instructions 20 are retrieved 104 from the database 9 and are supplied 106 to the server upgrader 22.”; also column 5 lines 48-63, “When the job is ready to be installed to the target server, the server upgrader connects with the server...and then sends the job...to a staging area. The staging area may...be anywhere else in the network capable of handling the deposit and retrieval of upgrade files....the agent executes the instructions in the control file...”).

Stupek column 4 lines 6-9 discloses presenting a list of upgrades to a user: When the analysis is complete, the upgrade advisor 11 presents a report and/or graphical display to the user. Stupek takes an original list of available upgrades and analyses it to determine the set of necessary upgrades. A list is then generated to display the results of the analysis. Stupek further describes automatic installation of the displayed list using a Package database that describes any dependencies related to the package in column 7 lines 6-15: To enable automatic installation of the package, the database contains the package script 25g (the installation instructions for the package). The database also contains

Art Unit: 2192

information regarding the dependencies between the package and other upgrade objects or packages: child dependencies 25h are the upgrade objects associated with a package; sibling dependencies 25j are the packages upon which a package depends; and parent dependencies 25i are the packages or upgrade objects which together constitute a larger package. However, Stupek does not expressly disclose “adding said corresponding prerequisite items and corequisite items to said first list.” However, in an analogous environment, Taylor teaches adding dependency information to a list in column 2 lines 20-23: “If the dominant package has a dependent package not already installed, the method constructs a trailer script process and an action list. The action list has action entries identifying dependent packages not previously installed.” It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Taylor’s teaching of adding dependency packages to a list with Stupek’s first list. One of ordinary skill would have been motivated to install a multi-package distribution pack with package dependencies on a target system in a single installation operation (Taylor column 1 lines 58-60).

As per claim 3, the above rejection of claim 1 is incorporated. Stupek further discloses the use of an operating system with the computer system (column 1 line 17).

Art Unit: 2192

As per claim 4, the above rejection of claim 3 is incorporated. Stupek further discloses the use of a network with the computer system (column 1 line 13).

As per claim 5, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of keeping track of what software has been installed or uninstalled (column 6 lines 45-47).

As per claim 7, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of storing information relating to program updates in a file (column 6 lines 43-45).

As per claim 8, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of updating software on the computer system (column 5 lines 48-63).

As per claim 9, Stupek discloses:

*A system for maintaining software on a computer system (FIG. 1) comprising:*

*a maintenance application having a first list of third maintenance items wherein the first list comprises a list of maintenance items needed to be applied to said computer system (figure 1 reference 11 "Upgrade Advisor"; figure 1 reference 7 "Resource Upgrades", column 3 lines 31-43, "Upgrades to the network resources are provided to a server manager by a distribution medium...";*

Art Unit: 2192

also column 3 line 57 – column 4 line 7: “When the upgrades 7 become available to the network (e.g., by inserting the CD-ROM into the server manager drive, or by logging into the on-line service), an upgrade advisor 11 in the upgrade device 10 automatically analyzes each network resource 3 currently on the server 1 to determine the availability and **necessity of the corresponding upgrade 7**. When the analysis is complete, **the upgrade advisor 11 presents a report** and/or graphical display to the user.”);

All other limitations have been addressed in the above rejection of claim 1.

As per claims 11-13, 15 and 16, the above rejection of claim 9 is incorporated. All further limitations have been addressed in the above rejections of claims 3-5, 7, and 8, respectively.

As per claim 17, all limitations have been addressed in the above rejections of claims 1 and 9.

As per claim 18, Stupek discloses a computer program product (column 3 lines 31-33). Stupek further discloses a computer readable medium and program instruction means (column 11 line 9 – column 14 line 33). All further limitations have been addressed in the above rejection of claim 1.

10. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek et al as applied to claims 1 and 9, respectively, above, and further in view of “Y2K Compliance and the Distributed Enterprise” by Gowan et al.

As per claim 2, Stupek does not expressly disclose software maintenance on a mainframe.

However, in an analogous environment, Gowan et al. teaches the benefits of upgrading a mainframe computer system (page 68, paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Stupek’s software maintenance system with Gowan’s concept of upgrading a mainframe computer in order to facilitate a swift and automated upgrade process. This is desirable since mainframe computers serve a large number of users, and having a swift and automated upgrade process ensures the availability of correct and efficient software.

As per claim 10, all further limitations have been addressed in the above rejection of claim 2.

11. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek and Taylor as applied above to the rejections of claims 1 and 9, further in view of “IMS/ESA Sysplex Data Sharing: An Implementation Case Study” by Boyle et al. (hereinafter “Boyle”).

Art Unit: 2192

As per claim 6, the above rejection of claim 1 is incorporated. Stupek further discloses the use of a database application through the use of the "server database" (column 4 lines 14-16). Stupek does not expressly disclose the use of IBM ServiceLink. However, in an analogous environment, Boyle teaches that ServiceLink can be used in software maintenance (top of page 32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Boyle's teaching of ServiceLink with Stupek's database. One of ordinary skill would have been motivated to provide early opportunity to review software maintenance issues (Boyle: 2<sup>nd</sup> paragraph of page 32).

In regard to claim 14, the above rejection of claim 9 is incorporated. All further limitations have been addressed in the above rejection of claim 6.

### *Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5835777 to Staelin teaches software updates via searching dependencies and generation of a dependency list.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-F 6:00 - 4:30.

Art Unit: 2192

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDR



**TUAN DAM**  
**SUPERVISORY PATENT EXAMINER**